<u>**LISTING OF THE CLAIMS**</u>

This listing of claims replaces all prior versions and listings of claims in the application:

1. **(Currently Amended)** An information sharing method for holding information owned by at least one unit user on a storage device in a tree structure provided for each unit user, said tree structure including a plurality of nodes sequentially arranged from a home root node to at least one leaf node, such that said information corresponds to each of said nodes[[,]] to manage an availability condition of each of said nodes, said method comprising:

a first step in which a computer refers to the availability condition of each of said nodes on said storage device in response to an availability condition manipulation request for changing the availability condition of some node, to determine whether or not said availability condition manipulation request can be executed while satisfying a condition that the number of times of changes in the availability condition is limited to one at maximum on any of paths from said home root node to said respective leaf nodes;

a second step in which said computer executes the availability condition manipulation request such that said condition is satisfied when the availability condition manipulation request is determined as executable in said first step<u>, and provides a determination that the availability condition manipulation request is not executable when the availability condition manipulation request is determined as not executable in said first step</u>; and

a third step in which said computer refers to said availability condition in response to a tree structure manipulation request for modifying said tree structure, and executes the tree structure manipulation request such that said condition <u>continues to be</u> [[is]] satisfied.

2. **(Original)** The information sharing method according to claim 1, wherein said first step includes:

when said availability condition manipulation request involves setting an availability condition, determining that said availability condition manipulation request is executable when the availability condition of a node under manipulation is the same as that of the home root node, or is

a change start point of the availability condition in said tree structure, and determining that said availability condition manipulation request is not executable when the availability condition of said node under manipulation is different from that of said home root node, and is not said change start point.

3.   **(Original)**   The information sharing method according to claim 1, wherein said first step includes:

when said availability condition manipulation request involves clearing an availability condition, determining that said availability condition manipulation request is executable when a node under manipulation is a change start point of the availability condition in said tree structure, and determining that said availability condition manipulation request is not executable when said node under manipulation is not said change start point.

4.   **(Original)**   The information sharing method according to claim 1, wherein said first step includes:

determining that said availability condition manipulation request is not executable when a node under manipulation intended by said availability condition manipulation request is a home root node.

5.   **(Original)**   The information sharing method according to claim 1, wherein said second step includes:

when said availability condition manipulation request involves setting an availability condition, setting the availability condition of a node under manipulation as requested by said availability condition manipulation request, and setting the same availability condition to all nodes included in a maximum partial tree in which said node under manipulation is in position of a root.

6.   **(Original)**   The information sharing method according to claim 1, wherein said second step includes:

when said availability condition manipulation request involves clearing availability condition, clearing the availability of a node under manipulation, and setting the same availability

condition as that of said node under manipulation to all nodes included in a maximum partial tree in which said node under manipulation is in position of a root.

7. **(Original)** The information sharing method according to claim 1, wherein said third step includes:

when said tree structure manipulation request involves creating a new node, creating said new node at a requested location.

8. **(Original)** The information sharing method according to claim 7, wherein said third step further includes:

setting the same availability condition of a parent node of said new node to said new node after creating said new node.

9. **(Original)** The information sharing method according to claim 1, wherein said third step includes:

when said tree structure manipulation request involves duplicating a node group comprising at least one node, creating a duplicate of said node group at a requested location.

10. **(Original)** The information sharing method according to claim 9, wherein said third step further includes:

setting the same availability condition set to the parent node of a root node of said node group to said nodes which make up the duplicate of said node group after creating the duplicate of said node group.

11. **(Original)** The information sharing method according to claim 1, wherein said third step includes:

when said tree structure manipulation request involves moving a node group comprising at least one node, moving said node group to a location under a requested destination node.

12.   **(Currently Amended)**   The information sharing method according to claim 11, wherein said third step further includes:

performing one processing operation of a plurality of different availability condition modification processing operations depending on the availability condition of each of said nodes included in said node group after moving said node group.

13.   **(Currently Amended)**   The information sharing method according to claim 12, wherein said plurality of different availability condition modification processing operations comprises is one of first processing for maintaining the availability condition of each of said nodes included in said node group, second processing for setting the same availability condition of said destination node to each of said nodes, and third processing for querying a user whether said first processing for maintaining the availability condition or said second processing for setting the same availability condition is performed, and performing the one selected by the user.

14.   **(Currently Amended)**   The information sharing method according to claim 11, wherein said third step further includes:

performing one processing operation of a plurality of different availability condition modification processing operations depending on whether the availability condition of said destination node is different from that of the home root node after moving said node group.

15.   **(Currently Amended)**   The information sharing method according to claim 14, wherein said plurality of different availability condition modification processing operations comprises is one of first processing for maintaining the availability condition of each of said nodes included in said node group, second processing for setting the same availability condition of said destination node to each of said nodes, and third processing for querying a user whether said first processing for maintaining the availability condition or said second processing for setting the same availability condition is performed, and performing the one selected by the user.

16.   **(Currently Amended)**   The information sharing method according to claim 14, wherein said third step further includes:

performing <u>one processing operation of a plurality of</u> different <u>availability condition modification</u> processing <u>operations</u> depending on the availability condition of each of said nodes included in said node group after moving said node group.

17.   **(Currently Amended)**   The information sharing method according to claim 16, wherein said <u>plurality of different availability condition modification</u> processing <u>operations comprises</u> ~~is one of first~~ processing for maintaining the availability condition of each of said nodes included in said node group, ~~second~~ processing for setting the same availability condition of said destination node to each of said nodes, and ~~third~~ processing for querying a user whether said ~~first~~ processing <u>for maintaining the availability condition</u> or said ~~second~~ processing <u>for setting the same availability condition</u> is performed~~, and performing the one selected by the user~~.

18.   **(Currently Amended)**   The information sharing method according to claim 1, wherein each of said nodes in said tree structure is classified into <u>at least one of</u> an unchanged node having the same availability condition as the home root node<u>:</u>[[,]] a change start node having an availability condition different from that of said home root node and different from that of a parent node; and a change takeover node having an availability condition different from that of said home root node and the same as that of a parent node, said classification being added to information on said availability condition as a change state type of each of said nodes for management,
     wherein[[:]] said computer refers to said change state type for examining said availability condition.

19.   **(Original)**   The information sharing method according to claim 1, wherein said tree structure includes a node which is a short-cut to another node.

20.   **(Currently Amended)**   An information sharing apparatus for holding information owned by at least one unit user on a storage device in a tree structure provided for each unit user, said tree structure including a plurality of nodes sequentially arranged from a home root node to

at least one leaf node, such that said information corresponds to each of said nodes[[,]] to manage an availability condition of each of said nodes, said apparatus comprising:

an execution possibility determining module ~~means~~ adapted, responsive to an availability condition manipulation request for changing the availability condition of some node, to refer to ~~for referring~~ the availability condition of each of said nodes on said storage device to determine whether or not said availability condition manipulation request can be executed while satisfying a condition that the number of times of changes in the availability condition is limited to one at maximum on any of paths from said home root node to said respective leaf nodes;

an availability condition manipulating module ~~means~~ adapted to execute ~~for executing~~ the availability condition manipulation request such that said condition is satisfied when said execution possibility determining module ~~means~~ determines that the availability condition manipulation request is executable, and to provide a determination that the availability condition manipulation request is not executable when the availability condition manipulation request is determined as not executable by said execution possibility determining module; and

a tree structure manipulating module ~~means~~ adapted, responsive to a tree structure manipulation request for modifying said tree structure, to refer ~~for referring~~ to said availability condition to execute the tree structure manipulation request such that said condition continues to be [[is]] satisfied.

21.   (Currently Amended)   The information sharing apparatus according to claim 20, wherein said execution possibility determining module ~~means~~ is operative when said availability condition manipulation request involves setting an availability condition to determine that said availability condition manipulation request is executable when the availability condition of a node under manipulation is the same as that of the home root node, or is a change start point of the availability condition in said tree structure, and to determine that said availability condition manipulation request is not executable when the availability condition of said node under manipulation is different from that of said home root node, and is not said change start point.

22.   (Currently Amended)   The information sharing apparatus according to claim 20, wherein said execution possibility determining module ~~means~~ is operative when said availability

condition manipulation request involves clearing an availability condition to determine that said availability condition manipulation request is executable when a node under manipulation is a change start point of the availability condition in said tree structure, and to determine that said availability condition manipulation request is not executable when said node under manipulation is not said change start point.

23.   **(Currently Amended)**   The information sharing apparatus according to claim 20, wherein said execution possibility determining <u>module</u> ~~means~~ determines that said availability condition manipulation request is not executable when a node under manipulation intended by said availability condition manipulation request is a home root node.

24.   **(Currently Amended)**   The information sharing apparatus according to claim 20, further comprising <u>an</u> availability condition setting supporting <u>module</u> ~~means~~, when called from said availability condition manipulating <u>module</u> ~~means~~, for setting the same availability condition of a node under manipulation to all nodes included in a maximum partial tree in which said node under manipulation is in position of a root,

wherein said availability condition manipulating <u>module</u> ~~means~~ is operative when said availability condition manipulation request involves setting an availability condition to set the availability condition of a node under manipulation as requested by said availability condition manipulation request, and to call said availability condition setting supporting <u>module</u> ~~means~~.

25.   **(Currently Amended)**   The information sharing apparatus according to claim 20, further comprising <u>an</u> availability condition clear supporting <u>module</u> ~~means~~, when called from said availability condition manipulating <u>module</u> ~~means~~, for setting the same availability condition of a node under manipulation to all nodes included in a maximum partial tree in which said node under manipulation is in position of a root,

wherein said availability condition manipulating <u>module</u> ~~means~~ is operative when said availability condition manipulation request involves clearing availability condition to clear the availability of a node under manipulation, and to call said availability condition clear supporting <u>module</u> ~~means~~.

26.   **(Currently Amended)**   The information sharing apparatus according to claim 20, wherein said tree structure manipulating module ~~means~~ is operative when said tree structure manipulation request involves creating a new node to create said new node at a requested location.

27.   **(Currently Amended)**   The information sharing apparatus according to claim 26, further comprising a new node creation supporting module ~~means~~, when called from said tree structure manipulating module ~~means~~, for setting the same availability condition of a parent node to said new node,

wherein said tree structure manipulating module ~~means~~ calls said new node creation supporting module ~~means~~ after creating said new node.

28.   **(Currently Amended)**   The information sharing apparatus according to claim 20, wherein said tree structure manipulating module ~~means~~ is operative when said tree structure manipulation request involves duplicating a node group comprising at least one node to create a duplicate of said node group at a requested location.

29.   **(Currently Amended)**   The information sharing apparatus according to claim 28, further comprising a duplication supporting module ~~means~~, when called from said tree structure manipulating module ~~means~~, for setting the same availability condition set to the parent node of a root node of said node group to said nodes which make up the duplicate of said node group,

wherein said tree structure manipulating module ~~means~~ calls said duplication supporting module ~~means~~ after creating the duplicate of said node group.

30.   **(Currently Amended)**   The information sharing apparatus according to claim 20, wherein said tree structure manipulating module ~~means~~ is operative when said tree structure manipulation request involves moving a node group comprising at least one node to move said node group to a location under a requested destination node.

31.   **(Currently Amended)**   The information sharing apparatus according to claim 30,

further comprising a movement supporting module ~~means~~, when called from said tree structure manipulating module ~~means~~, for performing one processing operation of a plurality of different availability condition modification processing operations depending on the availability condition of each of said nodes included in said node group,

wherein said tree structure manipulating module ~~means~~ calls said movement supporting module ~~means~~ after moving said node group.

32.   (Currently Amended)   The information sharing apparatus according to claim 31, wherein said plurality of different availability condition modification processing operations performed by said movement supporting module comprises ~~means is one of first~~ processing for maintaining the availability condition of each of said nodes included in said node group, ~~second~~ processing for setting the same availability condition of said destination node to each of said nodes, and ~~third~~ processing for querying a user whether said ~~first~~ processing for maintaining the availability condition or said ~~second~~ processing for setting the same availability condition is performed~~, and performing the one selected by the user~~.

33.   (Currently Amended)   The information sharing apparatus according to claim 31, wherein said movement supporting module ~~means~~ further performs one processing operation of a plurality of different availability condition modification processing operations depending on whether the availability condition of said destination node is different from that of the home root node ~~each of said nodes included in said node group~~.

34.   (Currently Amended)   The information sharing apparatus according to claim 33, wherein said plurality of different availability condition modification processing operations performed by said movement supporting module comprises ~~means is one of first~~ processing for maintaining the availability condition of each of said nodes included in said node group, ~~second~~ processing for setting the same availability condition of said destination node to each of said nodes, and ~~third~~ processing for querying a user whether said ~~first~~ processing for maintaining the availability condition or said ~~second~~ processing for setting the same availability condition is performed~~, and performing the one selected by the user~~.

35.　　**(Currently Amended)**　　The information sharing apparatus according to claim 20, wherein each of said nodes in said tree structure is classified into <u>at least one of</u> an unchanged node having the same availability condition as the home root node, a change start node having an availability condition different from that of said home root node and different from that of a parent node; and a change takeover node having an availability condition different from that of said home root node and the same as that of a parent node, said classification being added to information on said availability condition as a change state type of each of said nodes for management,

wherein[[:]] said information sharing apparatus refers to said change state type for examining said availability condition.

36.　　**(Currently Amended)**　　The information sharing apparatus according to claim 20, further comprising <u>a</u> short-cut managing <u>module</u> ~~means~~ for creating a node which is a short-cut to a referenced node, said short-cut managing <u>module</u> ~~means~~ being responsive to designation of said short-cut node for searching said referenced node.

37.　　**(Currently Amended)**　　<u>A processor-readable medium incorporating a program of instructions configured to cause</u> ~~An information sharing program for causing~~ a computer to hold information owned by at least one unit user on a storage device in a tree structure provided for each unit user, said tree structure including a home root node, at least one leaf node, and a plurality of nodes sequentially arranged from the home root node to each leaf node, such that said information corresponds to each of said nodes[[,]] to manage an availability condition of each of said nodes, said <u>program of instructions</u> ~~information sharing program~~ comprising:

first <u>instructions configured to refer</u> ~~processing for referring~~ to the availability condition of each of said nodes on said storage device in response to an availability condition manipulation request for changing the availability condition of some node, to determine whether or not said availability condition manipulation request can be executed while satisfying a condition that the number of times of changes in the availability condition is limited to one at maximum on all paths from said home root node to said respective leaf nodes;

second <u>instructions configured to execute</u> ~~processing for executing~~ the availability condition manipulation request such that said condition is satisfied when the availability condition manipulation request is determined as executable in said first processing<u>, and to provide a</u>

determination that the availability condition manipulation request is not executable when the availability condition manipulation request is determined as not executable by the first instructions; and

third instructions configured to refer ~~processing for referring~~ to said availability condition in response to a tree structure manipulation request for modifying said tree structure, and executing the tree structure manipulation request such that said condition continues to be [[is]] satisfied.